

We claim:

1. A method of reducing blocking artifacts in video compression, comprising:
for a block edge segment of a block portion of the video where the block edge
5 segment has a length of plural pixels, sampling an edge strength measure at a subset of
pixel locations less than all pixel locations along the block edge segment's length;
determining whether to filter the block edge segment based on the sampled edge
strength measure;
filtering the block edge segment conditioned on the determination.
10
2. A method of reducing blocking artifacts in video compression, comprising:
evaluating a deblocking filter condition for a block edge between two blocks in a
frame of the video based at least in part on a frame type, motion vectors of the blocks,
and non-zero residual error;
15 determining whether to filter the block edge dependent at least in part upon the
evaluation; and
if determined to filter the block edge, applying a deblocking filter to the block
edge.
- 20 3. The method of claim 2 further comprising:
sampling an edge strength measure at locations less than a full length of the block
edge; and
further basing the determination of whether to filter the block edge based on the
sampled edge strength measure.
25
4. A method of reducing blocking artifacts in video compression, comprising:
determining whether to apply a deblocking filter to a block edge between two
blocks in a frame of the video based at least in part on the blocks' types, whether the
blocks are inter-frame or intra-frame coded, and the blocks' coded block pattern;

if determined to filter the block edge, applying a deblocking filter to the block edge.

5 5. The method of claim 4 wherein the code block patterns of the blocks are indicative of whether the blocks contain non-zero transform coefficients, and the determining whether to apply the deblocking filter based on the coded block pattern is based on the coded block patterns of the blocks indicating the blocks contain non-zero transform coefficients.

10 6. The method of claim 4 wherein the determining whether to apply the deblocking filter comprises determining to apply the deblocking filter unless the blocks' have matching types, the blocks are not intra-coded, and the coded block patterns are zero.

15 7. A digital video signal processing system comprising:
a video encoder/decoder;
an in-loop deblocking filter in the video encoder/decoder; and
a deblocking condition evaluator for controlling application of the in-loop
deblocking filter to an encoded block within a frame of video according to an evaluation
20 of a deblocking condition based at least in part upon a frame type, motion vectors of the block, and residual error of the blocks being non-zero.

25 8. A computer readable medium having software programming of a video encoder or decoder carried thereon, including code executable on a computer to perform a method of reducing blocking artifacts in compressed video processed by the video encoder or decoder, the method comprising:

for a block edge segment of a block portion of the video where the block edge segment has a length of plural pixels, sampling an edge strength measure at a subset of pixel locations less than all pixel locations along the block edge segment's length;

determining whether to filter the block edge segment based on the sampled edge strength measure;

filtering the block edge segment conditioned on the determination.